

A1 --This application is a continuation-in-part application of United States serial no. 09/378,696, filed August 23, 1999 (now abandoned), which is incorporated herein by reference in its entirety.--

In the Claims:

Please amend claims 1, 3, 8, 11, 17, 18 and 19 as follows:

1. (Amended) A method for the production of chymosin in a plant seed comprising:

a) introducing into a plant cell a chimeric nucleic acid sequence molecule comprising in the 5' to 3' direction of transcription:

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- 1) a seed-specific promoter capable of regulating transcription in said plant cell operatively linked to;
 - 2) a second nucleic acid sequence encoding a chymosin polypeptide operatively linked to;
 - 3) a third nucleic acid sequence capable of terminating transcription in said plant cell;

b) growing said plant cell into a mature plant capable of setting seed wherein said seed contains chymosin; and

c) obtaining seed from the mature plant wherein the seed contains at least 0.5% (w/w) chymosin.

A3 3. (Amended) The method according to claim 1 wherein said seed-specific promoter is a phaseolin promoter.

A4 8. (Amended) The method according to claim 7 wherein the plant signal sequence is a tobacco PR-S signal sequence.

Q5 11. (Amended) The method according to claim 1 wherein the chymosin is a mammalian chymosin obtained from a bovine, sheep or goat source.

17. (Amended) A method for the production of plant seeds containing at least 0.5% (w/w) chymosin in the total seed protein comprising:

Q4 (a) introducing into each of at least two plant cells a chimeric nucleic acid sequence molecule comprising in the 5' to 3' direction of transcription:

- 1) a seed-specific promoter capable of regulating transcription in said plant cell operatively linked to;
- 2) a second nucleic acid sequence encoding a chymosin polypeptide operatively linked to;
- 3) a third nucleic acid sequence capable of terminating transcription in said plant cell;

(b) growing each plant cell into a mature plant capable of setting seed;
(c) obtaining seed from each mature plant;
(d) detecting the levels of chymosin in the seed of each plant obtained in step (c) or in the seed of a plant generated from the seed of a plant obtained in step (c); and

(e) selecting plants that contain at least 0.5% (w/w) chymosin in the total seed protein.

18. (Amended) A method according to claim 1 further comprising (d) isolating said chymosin from said seed obtained in step (c).

19. (Amended) A method according to claim 18 wherein (d) isolating said chymosin from said seed comprises:

- (i) crushing the plant seed to obtain crushed plant seed;

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cm
- (ii) contacting the crushed plant seed or an aqueous fraction thereof with a protein binding resin; and
 - (iii) recovering chymosin from the protein binding resin.
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Please delete claims 2 and 4.